

## WEST Search History

DATE: Friday, July 23, 2004

<b>Hide?</b>	<b>Set Name</b>	<b>Query</b>	<b>Hit Count</b>
	<i>DB=USPT; PLUR=NO; OP=ADJ</i>		
<input type="checkbox"/>	L9	US-6187223-B1.did.	1
<input type="checkbox"/>	L8	US-6187223-B1.did.	1
<input type="checkbox"/>	L7	US-6007740-A.did.	1
<input type="checkbox"/>	L6	US-6007740-A.did.	1
	<i>DB=USPT,EPAB,JPAB,DWPI,TDBD; PLUR=NO; OP=ADJ</i>		
<input type="checkbox"/>	L5	jp-10204016-\$.did.	2
<input type="checkbox"/>	L4	jp-09204016-\$.did. or jp-1009204016-\$.did. or jp-08204016-\$.did.	4
<input type="checkbox"/>	L3	jp-1998204016-\$.did.	0
<input type="checkbox"/>	L2	ccqb-F\$	0
<input type="checkbox"/>	L1	cqb-F\$	0

END OF SEARCH HISTORY

First Hit☐ **Generate Collection**

L5: Entry 1 of 2

File: JPAB

Aug 4, 1998

PUB-NO: JP410204016A

DOCUMENT-IDENTIFIER: JP 10204016 A

TITLE: POLYHALOALKYLETHET DERIVATIVE, LIQUID CRYSTAL COMPOSITION CONTAINING THE SAME AND LIQUID CRYSTAL DISPLAY ELEMENT

PUBN-DATE: August 4, 1998

## INVENTOR-INFORMATION:

NAME

COUNTRY

ANDO, YORIMICHI

SHIBATA, KOICHI

MATSUI, SHUICHI

MIYAZAWA, KAZUTOSHI

TAKEUCHI, HIROYUKI

HISATSUNE, YASUNORI

TAKESHITA, FUSAYUKI

NAKAGAWA, ETSUO

KOBAYASHI, KATSUHIKO

TOMI, YOSHITAKE

INT-CL (IPC): C07 C 43/192; C07 C 43/225; C07 C 69/75; C07 C 69/773; C07 C 255/54;  
C07 D 239/26; C09 K 19/08; C09 K 19/12; C09 K 19/14; C09 K 19/20; C09 K 19/30; C09  
K 19/34; C09 K 19/42; G02 F 1/13

## ABSTRACT:

PROBLEM TO BE SOLVED: To obtain the subject new compound having a wide liquid crystalline phase temperature range and a low viscosity, exhibiting a low threshold voltage and a high stability, and useful as a liquid crystalline compound excellent in miscibility with another liquid crystalline compound.

SOLUTION: This compound is expressed by the formula [R1 is a (substituted) 1-20C alkyl, etc.; Y1 is a halogen, CN, CF3, etc.; Z1 to Z3 are each a covalent bond, CH2CH2, CH=CH, etc.; rings A1 to A4 are each trans-1,4-cyclohexylene, 3-cyclohexen-1,4-ylene, etc.], e.g. 3-fluoro-4-(1,1,2,2-tetrafluoroethoxy)phenyl=4-(trans-4-propylcyclohexyl)benzoate. The compound is obtained by reacting a phenolic derivative with a carboxylic acid derivative in a solvent such as dichloromethane or chloroform in the presence of a dehydrating agent such as dicyclohexylcarbodiimide and 4-dimethylaminopyridine.

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